User Manual

Terrestrial Multi Band Amplifier

MBA 430 N

Item-No: 57003892

Content

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1. Introduction

Product Description

The MBA 430 N has been designed to amplify terrestrial TV and radio signals for installations and distribution systems. The MBA 430 N has separate inputs for the different terrestrial frequency bands.
The different signals can be levelled individually.

The MBA 430 N offers
- 4 Inputs (FM, VHF, UHF 1 and UHF 2)
- UHF 2-Input with 12 V/150 mA supply for antenna pre-amplifiers
- 2 Outputs (1 Output -30 dB)
- Integrated power supply

The output can be connected directly to antenna sockets or to the terrestrial input of satellite multi switches in order to further distribute the signal.

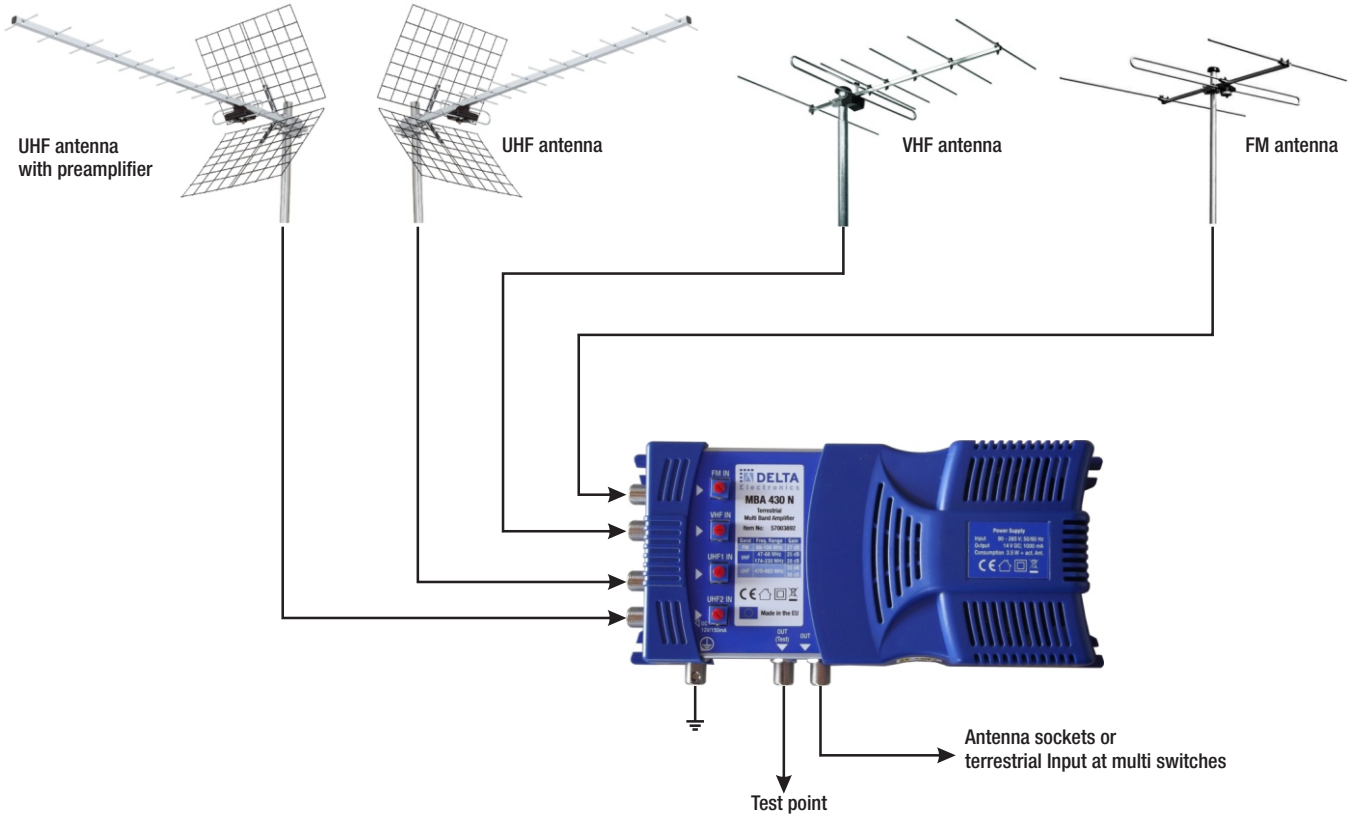
Package Content

1x Terrestrial multi band amplifier MBA 430 N
1x User Manual

Product Elements

1 Input for FM antenna
2 Input for VHF antenna
3 Input for UHF antenna
4 Input for UHF antenna with preamplifier
5 Earthing connector
6 Test output (-30 dB)
7 Output for antenna sockets or terrestrial input at multi switches
8 Power LED
9 Attenuators

2. Installation



3. Configuration of the MBA 430 N

FM Antenna Input 1

Connect the cable of a FM antenna (88 - 108 MHz) to this input. If the input is not connected, it must be terminated with a 75 Ohms resistor.

VHF Antenna Input 2

Connect the cable of a VHF antenna (74 - 68 MHz and 174 - 230 MHz) to this input. If the input is not connected, it must be terminated with a 75 Ohms resistor.

UHF 1 Antenna Input 3

Connect the cable of a passive UHF antenna (470 - 862 MHz) to this input. If the input is not connected, it must be terminated with a 75 Ohms resistor.

UHF 2 Antenna Input 4

Connect the cable of an active UHF antenna (470 - 862 MHz) to this input. If a passive UHF antenna is connected, you have to insert a DC block. If the input is not connected, it must be terminated with a DC blocked 75 Ohms resistor.

Earthing connector 5

Connect a qualified earthing cable to this connector. The earthig cable must be connected to ground.

Test Output (-30 dB) 6

This input serves the installer to measure the level of the different signal sources. Here you can connect a measurement device to level the signals of the different bands.

Output 7

This output offers the combined signals of the different sources. the signal level of 110 dBµV is sufficient to distribute the signal to several antenna sockets. You also can insert the combined signal on this output to the terrestrial input of satellite multi switches where it can be further distributed.

Power LED 8

The Power LED shows if the supplied voltage is sufficient. If the LED if off, Please check the correct connection of the power plug and the voltage of the power socket. If still no signal is available even the LED is on, please check the connections to the antennas.

Attenuators 9

The attenuators are meant to level the signals of the different inputs. To do so, you can attenuate each input signal 0 to 15 dB. To set the different signal levels you eed to connect a measurement device to the test output.

4. Technical Specification

MBA 430 N	
Amplifier	
Number of inputs	4
Number of outputs	1 + 1 for signal measuring (-30 dB)
Frequency range	VHF 47-68 MHz + 174-230 MHz FM 88-108 MHz UHF 470 - 862 MHz
Gain	VHF 25 dB (47-68 MHz), 28 dB (174-230) MHz FM 27 dB UHF 33 - 38 dB
Maximum Input level* (at minimum attenuation)	VHF 85 dBµV (47-68 MHz), 82 dBµV (174-230) MHz FM 83 dBµV UHF 77 - 72 dBµV
Maximum output level*	110 dBµV
Power supply	170 mA (14V DC) from power supply
Output voltage UHF 2	12 V DC (150 mA maximum)
Power consumption	3,2 W + consumption of an external antenna preamplifier
Dimensions	221 x 107 x 54 mm
Operation temperature range	-25°C - +60°C
Power Supply	
Input voltage	90 - 265 V AC, 50 / 60 Hz
Output voltage	14 V DC
Maximum output current	1,0 A (14 V DC)
Maximum output power	14 W
Efficiency	75% min.
Dimensions	140 x 100 x 54 mm (power cord 1,3m)
Operating temperature range	-25°C - +60°C

* EN 50083-3 / 60 dB IMA3

5. Safety Notes

Read the instructions carefully before you connect the device!

⚠ To avoid fire, shortage or electrical shock:

- Never expose the product to rain or high humidity.
- Install the device at a dry plae without water infiltration or condensation.
- Don´t expose the device to drops or splash water.
- don´t place any containers with liquids (e.g. vases) onto the device.
- If any liquid penetrates the device, pull the power cord immediately.

⚠ To avoid overheating:

- Install the device at a sufficient ventilated place. Make sure to keep a distance of at least 15cm around the device to ensure a proper ventilation.
- Don´t place anything onto the device that could block the ventilation slots (news paper, table cloths, curtains, ...)
- Don´t place any open flames like candles onto the device.
- Don´t install the device in a dusty environment.
- Don´t use the device in areas with tropical climate.
- Maintain the minimum and maximum temperature limits.

⚠ To avoid electrical shocks:

- Make sure the device is porperly grounded
- The power plug should be easy to reach.
- Always pull the power plug before connecting any signal cable
- Never open the device.

Maintenance

⚠ Use dry, soft cloth to clean the device

Don´t use any aggressive detergents.

For repair and maintenance please contact qualified retailers.

Disposal according to the local regulations.

6. Warranty Terms

For a periode of 24 years after the purchase of the product, DCT DELTA AG garantees that it is free of material and production faults.

In case the product turns out to be faulty during normal use within the warranty periode, DCT DELTA AG will repair or replace the product at ist own discretion. Please bring the device for repair to your local dealer.

The warranty is only valid for materials and production faults and does not cover damage out of:

- Abuse of the product or the use outside it´s specification.
- Installation or usage which does not comply with the technical and safety rules of the country where it is used.
- Usage of non-compliant accessories (power supply, adaptors,...).
- Installation in a faulty environment.
- External reasons outside the influence of DCT DELTA AG like droping the device, accidents, flashes, water, fire, insufficient ventilation ...

The warranty is omitted if:

- The production date or the serial number on the device cannot be read anymore or has been tampered, deleted or removed
- the product has been opened by an non-authorized person.

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DELTA Electronics

EU Declaration of Conformity (DoC)

We, manufacturer / importer

DCT DELTA GmbH
Bodanrückstr. 1, 78351 Bodman / Germany

declare that the DoC is issued under our sole responsibility and belongs to the following device:

Description: Terrestrial Multiband Amplifier
Type: MBA 430 N

The object of the declaration described above is in conformity with the relevant Union harmonization legislation:

- 2014/30/EU Electromagnetic Compatibility Directive (EMC)
- 2014/35/EU Low Voltage Directive (LVD)
- 2014/53/EU Radio Equipment Directive (RED)
- 2011/65/EU Restriction of the use of certain Hazardous Substances Directive (RoHS)

The following harmonized standards and technical specifications have been applied:

EN 50083-2:	2012 + A1:2015 Cable networks for television signals, sound signals and interactive services – Part 2: Electromagnetic compatibility for equipment
EN 60728-11:	2010 Cable networks for television signals, sound signals and interactive services – Part 11: Safety requirements
EN 60065:	2014 Audio, video and similar electronic apparatus – Safety requirements
EN 61000-3-2:	2015 Electromagnetic compatibility (EMC) – Part 3-2: Limits for harmonic Current emissions (equipment input current ≤ 16 A per phase)
EN 61000-3-3:	2014 Electromagnetic compatibility (EMC) – Part 3-3: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
EN 301489-1:	2017 Electromagnetic Compatibility (EMC) standard for radio equipment and services – Part 1: Common technical requirements – Harmonized standard covering the essential requirements of article 3.1 of Directive 2014/53/EU and the essential requirements of article 6 of Directive 2014/30/EU
EN 303354:	2017 Amplifiers and active antennas for TV broadband reception in domestic premises – Harmonized standard covering the essential requirements of article 3.2 of Directive 2017/53/EU
EN 50581:	2012 Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

The product is marked with CE

Bodman, 16.08.2018

DCT DELTA GmbH

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Notes

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